REMARKS

Summary of the Office Action

Claims 1-36 are pending in the application.

Claims 1, 3-13, 15-25 and 27-36 have been rejected under 35 U.S.C. § 103(a) as being obvious from Keshav U.S. Patent No. 5,627,970 ("Keshav") in view of Derby et al. U.S. Patent No. 5,359,593 ("Derby"). Claims 2, 4, and 26 have been similarly rejected under 35 U.S.C. § 103(a) as being obvious from Keshav in view of Gittins et al. U.S. Patent No. 5,526,350 ("Gittins").

Applicants' Reply

Amendment to the Specification

Applicants have amended the specification (Summary of the Invention section) to provide an alternate equivalent expression for the phrase "the data arrive on time" as "a proper time sequence of data received". Applicants respectfully submit that the two expressions are equivalent and no new matter has been added. The notion that these two expressions are equivalent is fully supported by the disclosure. (See e.g., description of frame sequences, page 7 lines 21 34, page 8 lines 1-10, lines 21-28, page 9 lines 5-12; also see e.g., page 11 lines 11-23).

Claim Amendments

Applicants have amended claims 1, 13 and 25 for clarity. In particular, these claims have been similarly amended to indicate that "a proper time sequence of data is received". This, as noted above, is not new matter and is fully supported by the specification. The claims have also been amended to clarify that "data is adjusted in real time for data transmission". This clarification also is fully supported in the specification. (See e.g., page 1 lines 29-31 "For congestion control . . . for real time transmissions"; page 3 lines 25- page 4 line 2; page 7 lines

1-9, lines 12-15; page 8 lines 9-20 "the media pump sends out data so as to comply with the CWND," which is a real time congestion measure; page 9 lines 1 –12 "the adaptable media module is instructed to change the rate of the media" by dropping frames or reducing transmission rates; See also FIGS. 4 and 5 and related description).

Prior art rejections

Applicants respectfully traverse the prior art rejections.

Independent claims 1, 13, and 25 have been rejected as obvious from Keshav and Derby.

Applicants' inventive methods and systems concern data transmission from a sender to a receiver over a digital communications network. These methods and systems, according to claims 1, 13, and 25, involve maintaining current estimates of the available transmission bandwidth on the network, and in response adjusting or processing the data for transmission (e.g., adjusting the bit rate of pre-compressed video feeds or dropping video frames) so that the data is transmitted without congestion and received in a timely manner, i.e. in a proper time sequence, by the receiver (e.g., to preserve a proper time sequence of video frames viewed by the receiver).

Applicants note that the cited references Keshav, Derby and Gittins, whether taken individually or in combination, do not show all the elements of the applicants' inventive methods and systems for data modification/transmission in an uncongested manner over a network. For example, Keshav concerns a flow control mechanism for selecting a suitable data transmission rate on a network. Keshav tests the available bandwidth on the network and accordingly sets the data packet input rate toward a target optimal rate for the network. See e.g., Keshav Figs. 4 and 5. Keshav also describes loss detection and later-time retransmission of data packets that are lost

even when the network is operating at the optimal data transmission rate. See e.g., Keshav Fig. 6. However, Keshav does not teach, suggest or show, adjusting or processing the data for transmission according to the available bandwidth so that the receiver receives the transmitted data in a timely manner, i.e. in a proper time sequence.

Similarly, Derby does not relate to the time sequence of data receipt by the receiver. As noted by the Examiner, Derby concerns dynamic bandwidth estimation and [connection] adaptation. (Office Action, page 3). Derby selects or requests "connection bandwidth" according to user "service requirements." See e.g., Derby Col. 5 lines 47 –col. 6 line 44. The Examiner correctly notes that a service requirement may be "real time delivery." See e.g., Derby Col. 5 line 55. However, applicants submit that Derby merely "requests" a network connection of appropriate bandwidth for a user service requirement. See e.g., Derby Col. 5 line 55-60. Derby does not modify or adjust the data for transmission according to the available bandwidth so that the receiver receives the transmitted data in a timely manner, i.e. in a proper time sequence.

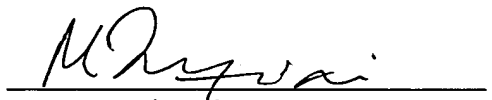
Thus, neither Keshav nor Derby, whether taken individually or in combination, teach, suggest or show the elements of the applicants' claims 1, 13, and 25 that relate to "adjusting the data for transmission . . . in order to maintain a proper time sequence of data received . . . " Accordingly, independent claims 1, 13, and 25 are patentable over the cited references. Further, claims 2-12, 14-24 and 26-36 (that depend from a respective one of independent claims 1, 13, and 25) also are patentable.

Conclusion

For the reasons set forth above, applicants respectfully submit that this application is now in condition for allowance. Reconsideration and prompt allowance of which are respectfully requested.

Respectfully submitted,

BAKER BOTTS L.L.P.

By: 

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